



Thirteenth Australian International Aerospace Congress

Monday 9 - Thursday 12 March 2009  
Melbourne Convention Centre, Australia



## Sixth DSTO International Conference on Health & Usage Monitoring

*Please note that this is a preliminary outline only and subject to change.*

### Presenter Listing

#### **Reading the Tea Leaves: Considerations for the Analysis of Aircraft Oil Filter Debris**

*Mr Andrew Becker, Defence Science & Technology Organisation*

#### **Advanced HUMS Capabilities for Offshore Operations**

*Mr Steve Boakes GE Aviation Systems Ltd*

#### **Integrating Model-based Shaft Coupling Prognostics with Vibration Diagnostic Features**

*Mr Carl Byington, P.E., Impact Technologies, LLC*

#### **Combination of Fusion and Preprocessing Techniques to Enhance Air Vehicle HUMS**

*Mr Carl Byington, P.E., Impact Technologies, LLC*

#### **Roadmap for Helicopter Life Usage**

*Ms Catherine Cheung, National Research Council Canada Institute For Aerospace Research*

#### **Advanced RTB Data Analysis**

*Mr Malcolm Davies, Helitune Ltd*

#### **Event-based HUMs for Land-Vehicles**

*Mr Chris Doran, INDUSTREA*

#### **A Description of the MRH 90 Health and Usage Monitoring System**

*Mr James Fay, Australian Aerospace*

#### **Gas Turbine Casing Response to Blade Vibrations: Analytical and Experimental results**

*Mr Gareth Forbes, University of New South Wales*

#### **In Situ Structural Health Monitoring for Aircraft Structures**

*Dr Steve Galea, DSTO*

#### **Strain predictions using Artificial Neural Networks for a full-scale fatigue monitoring system**

*Mr Javier Gomez-Escalonilla, EADS MTAD*

#### **SEI Structural Data Recording System**

*Mr George Grove, Systems & Electronics, Inc.*

#### **The Research, Development, and Fielding Of A HUMS As An Enabler For Condition-Based Maintenance On U.S. Army Wheeled Ground Vehicles**

*Mr Craig Hershey, U.S. Army Materiel Systems Analysis Activity*

*Mr Mark Bounds, U.S. Army Materiel Systems Analysis Activity*

#### **Hums as a Service**

*Mr Aurnyn Hughes, Dytecna Systems Engineering*

#### **Architecture for Dynamic Component Life Tracking in Advanced HUMS, RFID, and Direct Load Sensor Environment**

*Dr Nagarja Iyyer, Technical Data Analysis, Inc.*

*Mr Scott Bradfield, Technical Data Analysis, Inc.*



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**Development of a Flight Manoeuvre Recognition Program for the S-70A-9 Black Hawk Helicopter Using Information from the Flight Data Recorder**

*Dr Aaron James, Defence Science And Technology Organisation*

**Structural integrity assessment of plates using vibration monitoring: theory and simulation**

*Mr Laxmikant Kannappan, University Of New South Wales, Australian Defence Force Academy*

**The optimization of exploiting fatigue-life resources of the PZL-130 Orlik's structure**

*Mr Andrzej Leski, Air Force Institute Of Technology*

**Towards Wireless Sensor Usage and Health Monitoring of Helicopter Rotor Components**

*Prof Nicholas Lieven, University Of Bristol*

**WISD - Wireless Intelligent Sensing Devices**

*Prof Nicholas Lieven, University Of Bristol*

**An introduction to Condition Based Maintenance using reliability assessment methods**

*Mr Pierre-Loïc MAISONNEUVE, Eurocopter TZSG*

**Characterization of Rotorcraft Recorded Maneuver/Regime Usage Variability**

*Dr Suresh Moon, Air Vehicle Engineering, L-3 Communications*

**Super Hornet Usage Monitoring System**

*SQNLDR Paul Parolo, Australian Super Hornet Project Office*

**Prognostics-Based Product Reliability Monitoring**

*Prof Michael Pecht, Uni Of Maryland*

**C-130J Propeller Balancing**

*Mr Brian Rebbechi, DSTO*

**Automated design and optimisation of sensor sets for Condition-Based Monitoring**

*Dr Shoshanna Rudov-Clark, PHM Technology*

**The language of FMEA: on the effective use and reuse of FMEA data**

*Dr Shoshanna Rudov-Clark, PHM Technology*

**Effects of limiting the bandwidth of the vibration signal on bearing fault detection and diagnosis using state of the art techniques**

*Dr Nader Sawalhi, University Of New South Wales*

**Open-Source Development of an Automated Maintenance Environment (AME) for lower cost, collaborative implementation of CBM+**

*Mr Joseph Schmidley, US Navy - Space and Naval Warfare Systems Command (SPAWAR)*

**HISDES: a shared multinational Helicopter Integrated Supportability DataExchange System for the NH-90**

*Mr Lex Ten Have, National Aerospace Laboratory NLR, The Netherlands*

**Crack initiation detection and crack growth monitoring with DMI technology**

*Mr Reginald Vachon, Direct Measurements, Inc.*

**Getting The Rights Things Done In Developing Enterprise Health Management Systems**

*Mr Roger Vodicka, DSTO*